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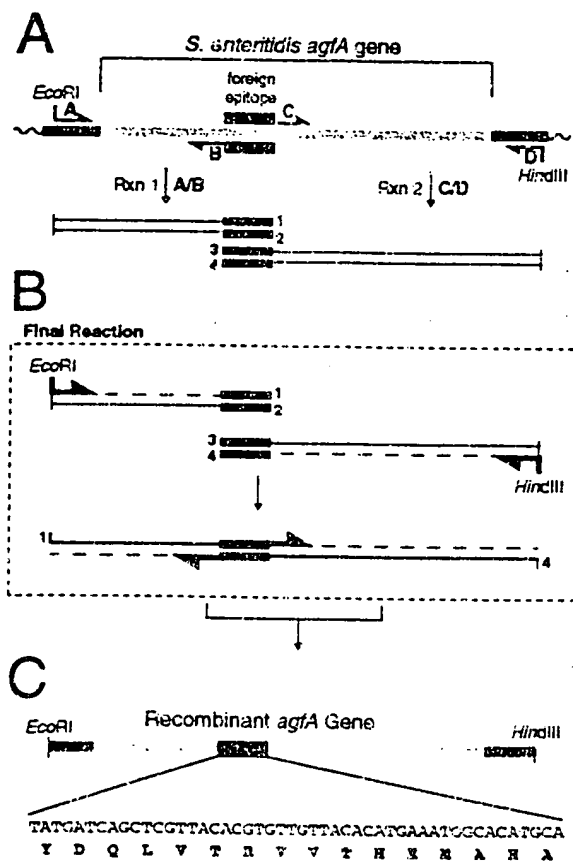


Figure 1A, 1B and 1C

005040-040500

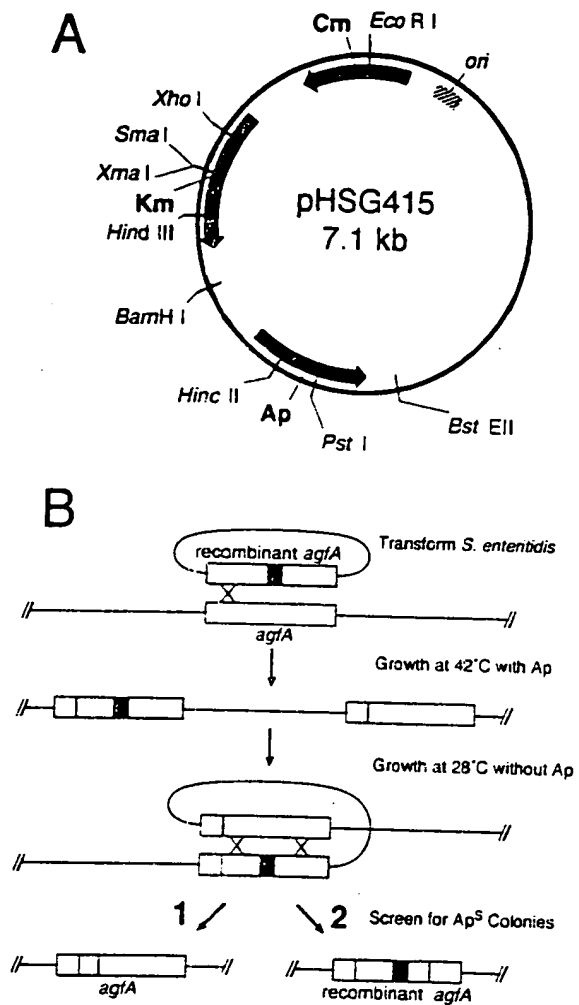


Figure 2A and 2B

A PT3 epitope of *L. major*

YDQLVTRVVTHEMAHA
-----XXXXXXXXX

B AgfA amino acid sequence

■ A1
C5e 113 SSVMVRQ VGFG NNATANQ Y 131
----- *** *****

A10 A2
C5d 91 SDITVGQ YGGN NAALVNQ TASD 112
*----- <*** *----- ***<

A9 A6 A10
C5c 68 STIELTQ NGFR NNATIDQ WNAKN 90
----- <<<* **----- ****<

A8 A5 A9
C5b 46 SETTITQ SGYG NGADVQ GADN 67
----- <<< *----- ****

A4 A8
C5a 23 STLSIYQ YGSA NAALALQ SDARK 45
----- *** -----X- *****

A3
N 1 GVVPPQWGGGGNENGCGNSSGPD 22
-----*<*****<<<*****<

Figure 3A and 3B

C

Parallel β -helix model of AgfA

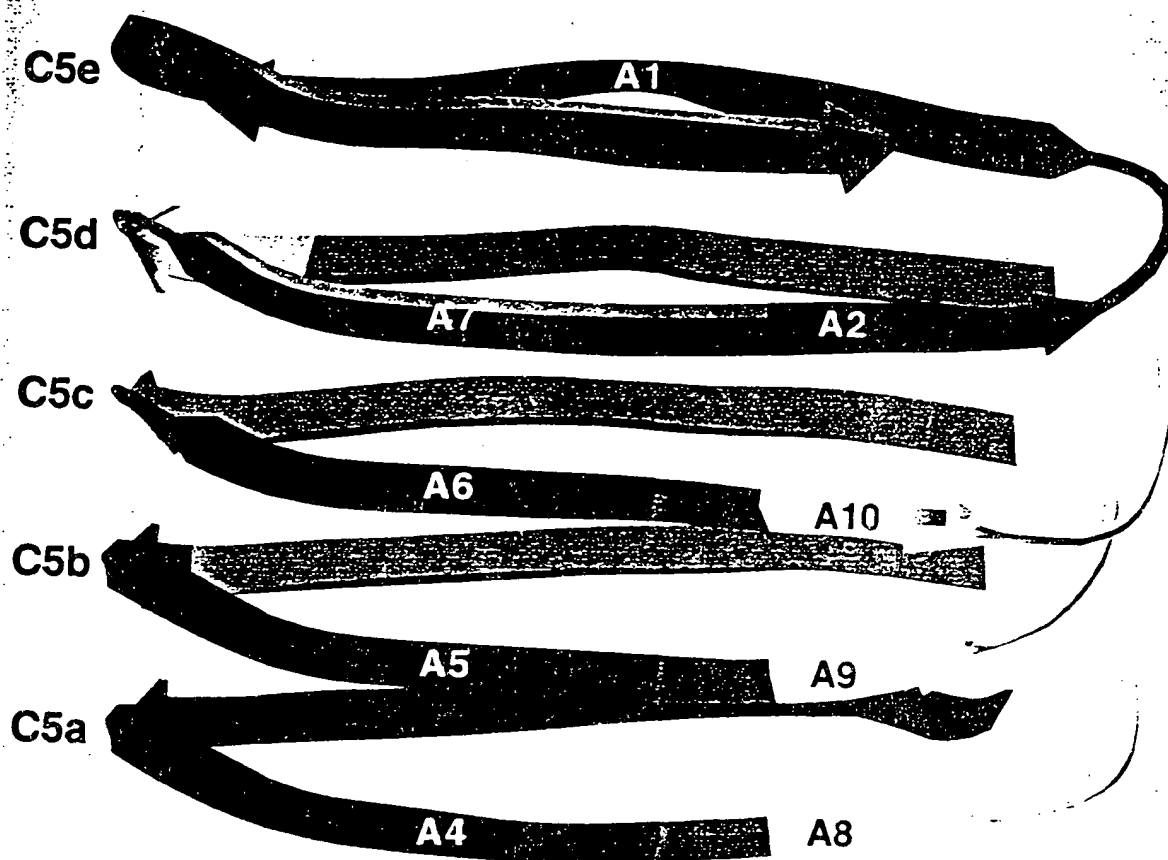


Figure 3C

005040" 204E+560

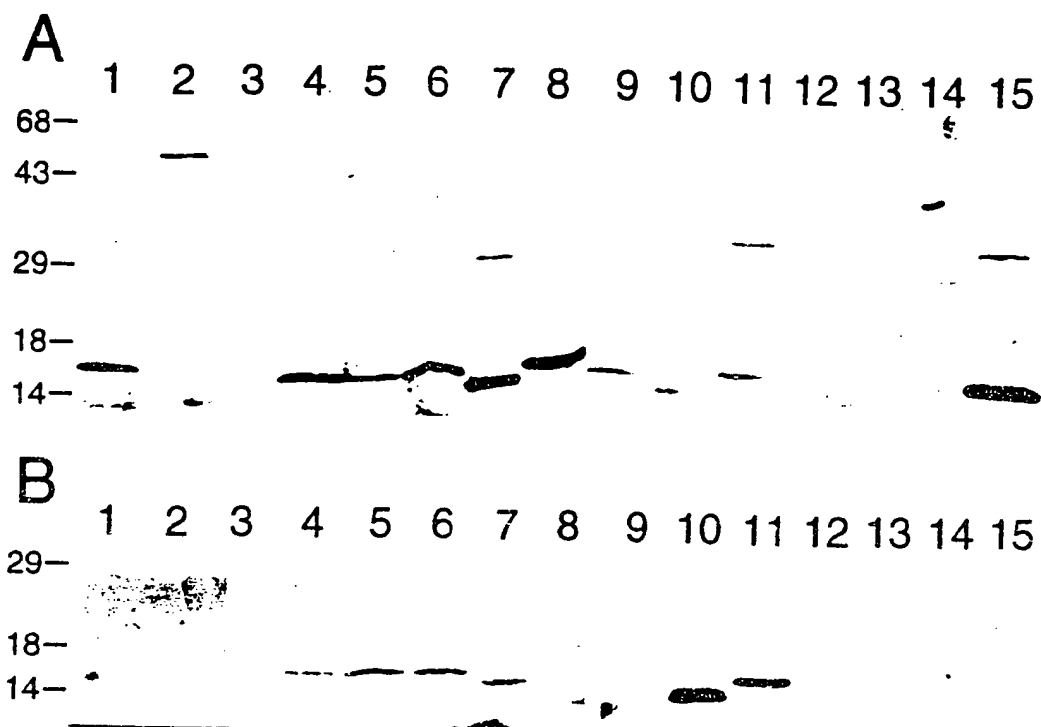


Figure 4A and 4B

005040" 204E4560

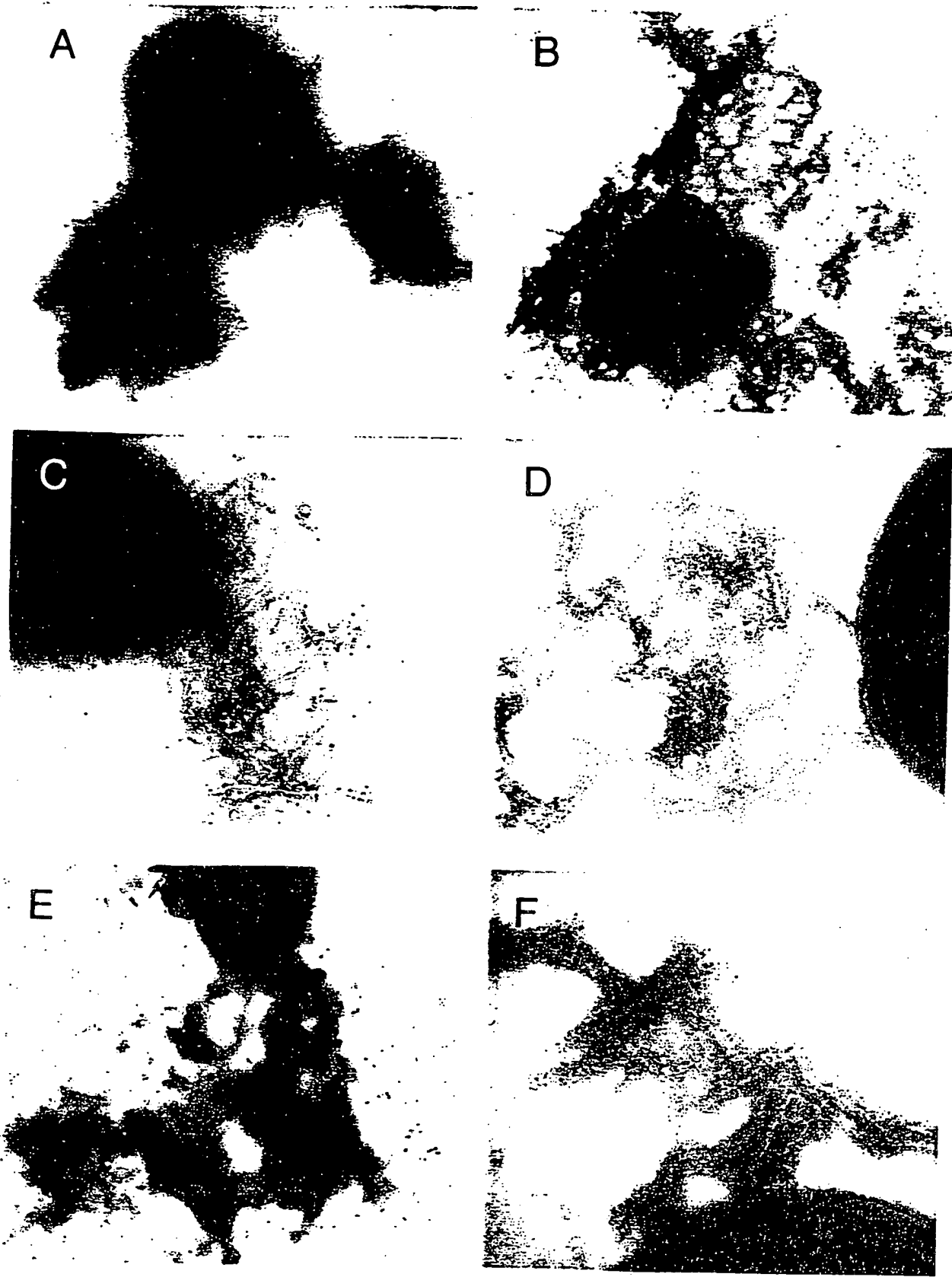


Figure 5A, 5B, 5C, 5D, 5E and 5F

00543407.040500

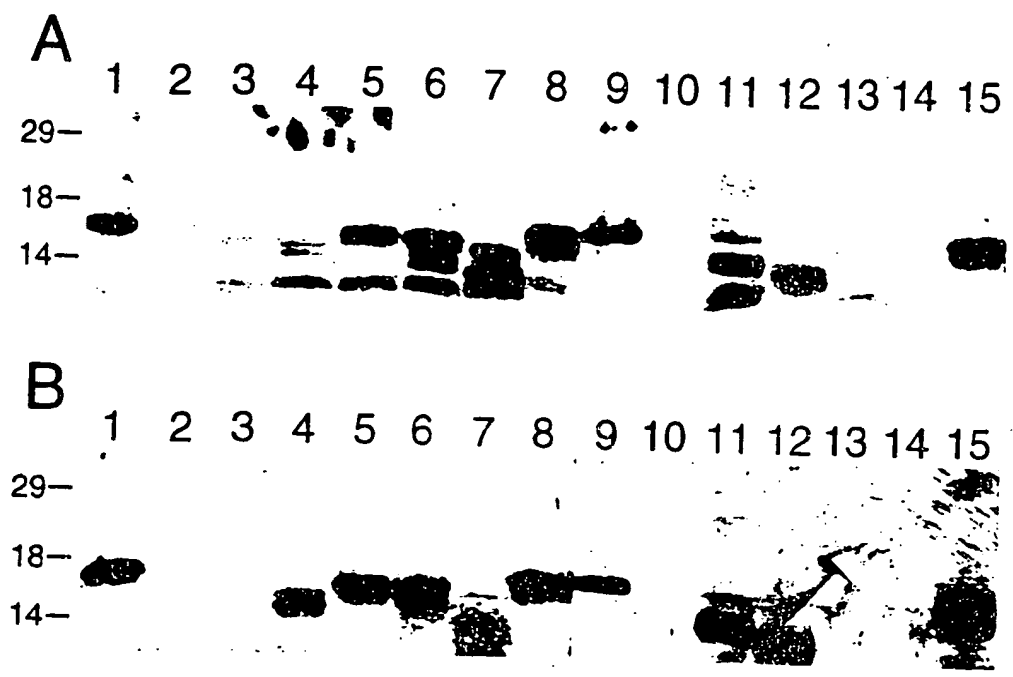


Figure 6A and 6B

Figure 7

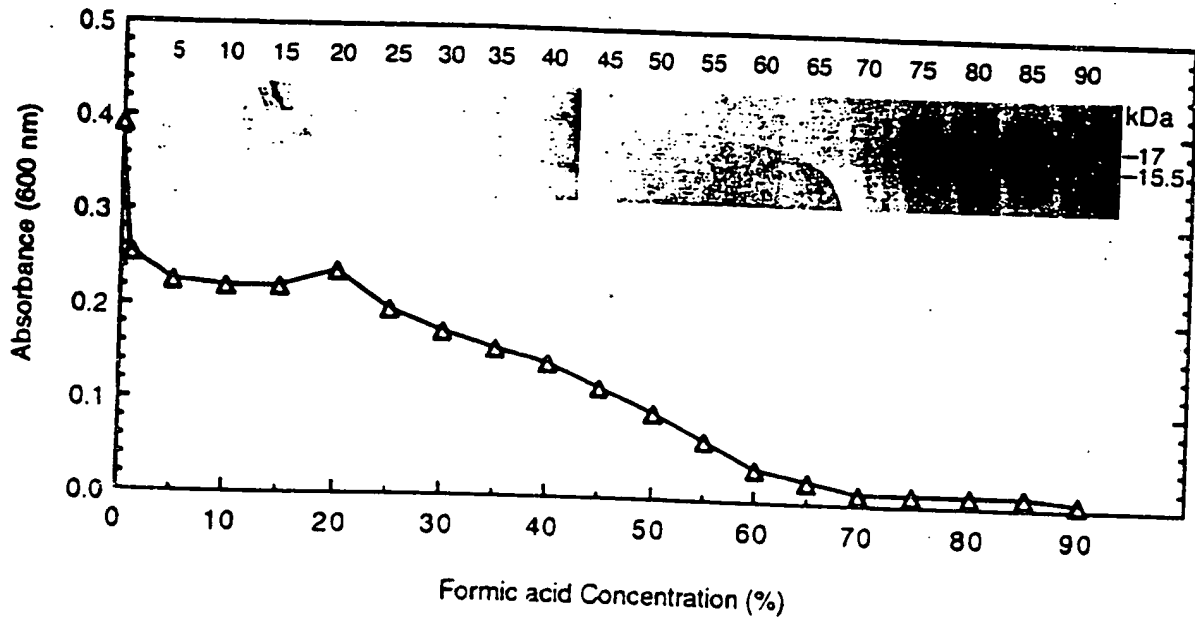


Figure 8

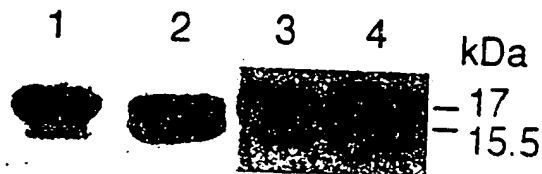


Figure 7 and Figure 8

(a)

| | |
|----------|----------|
| N (22) | C (109) |
| N (22) | |
| N (22) | C2a (45) |
| | C2b (44) |
| C5a (23) | C5b (24) |
| C5c (23) | C5d (24) |
| | C5e (19) |

(b)

C2a 43 A R K S E T T I T Q S G Y G N G A D V G Q G A D N S T I E L T Q N G F R N N A T I D Q W N
 C2b 88 • K N • D I • Y G • Y • G N • A • L • N • T • S D • S Y M Y R • V • • G • • • A N • Y

(c)

N 1 G V P Q W G G G N H N G G N S S G P D

C5a 23 S T L S I Y Q Y G S A N A L A L Q S D A R K
 C5b 46 S E T T I T Q S G Y G N G A D V G Q — G A D N
 C5c 68 S T I E L T Q N G F R N N A T I D Q W N A K N
 C5d 91 S D I T V G Q Y G G N N A L V N Q — T A S D
 C5e 113 S S V M V R Q V G F G N N A T A N Q Y

(d)

1 3 5 7 9 12 14 16 18
 S x x x x Q x G x x N x A x x x Q (x) x A x x

(e)

S x i φ i x Q N x i φ i x Q
 L S I A L A
 T T I A D V
 I E L A T I
 I T V A L V
 V M V A T A

Figure 9A, 9B, 9C, 9D, 9E

005040 " 040500

1 GVVPOWGGGGNHNGGGNSSGPD
 alx ccccccccccccccccccccccc
 hie ccccccccccccccccccccccc
 gar eeeeeectccccctttccccct
 gib eeeeeeccccccccccccccc
 nnp e

23 STLSIYQ YGSA NAALALQ SDARK
 alx ceeeeee cccc hhhhhhh hhccc
 hie ceeeeee cccc hhhhhhh hcccc
 gar eeeeeee eccc hhhhhhh hhhhh
 gib eeeeeee echh hhhhhhh hhhhc
 nnp eeeee e hhhhhhh h

46 SETTITQ SGYG NGADVQ GADN
 alx ceeeeec cccc ccccccc cccc
 hie ceeeeee cccc ccccccc cccc
 gar ceeeeee ettc ceeeeee cccc
 gib ceeeeee eccc ceeeeee cccc
 nnp eeeee

68 STIELTQ NGFR NNATIDQ WNAKN
 alx ceeeeec cccc cchhhhh hhccc
 hie ceeeeec cccc cccceeh ccccc
 gar eeeeeee tttc ceeeeee ecctt
 gib ceeeeee hccc cchhhhh hhhcc
 nnp eehh

91 SDITVQ YGGN NAALVQ TASD
 alx ceeeeec cccc chhhhhh cccc
 hie ceeeeee cccc ceeeeec cccc
 gar ceeeeee tccc ceeeeee ecct
 gib ceeeeee eccc cheeeee cccc
 nnp eeee hhhh

113 SSVMVRQ VGFG NNATANQ Y
 alx ceeeeee eccc ccccccc c
 hie ceeeeee eccc ccccccc c
 gar eeeeeee eccc cccccce e
 gib ceeeeee eeec cccchch e
 nnp eeeee

Figure 10

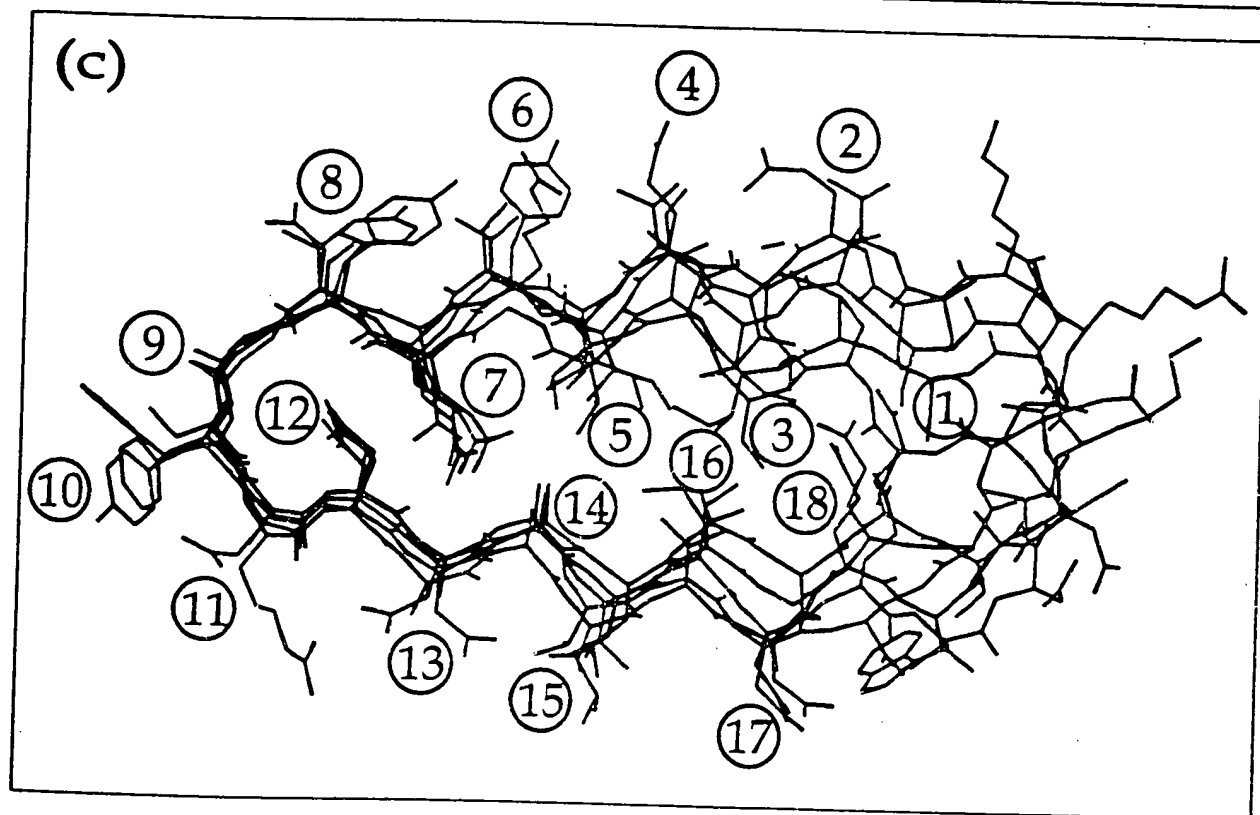
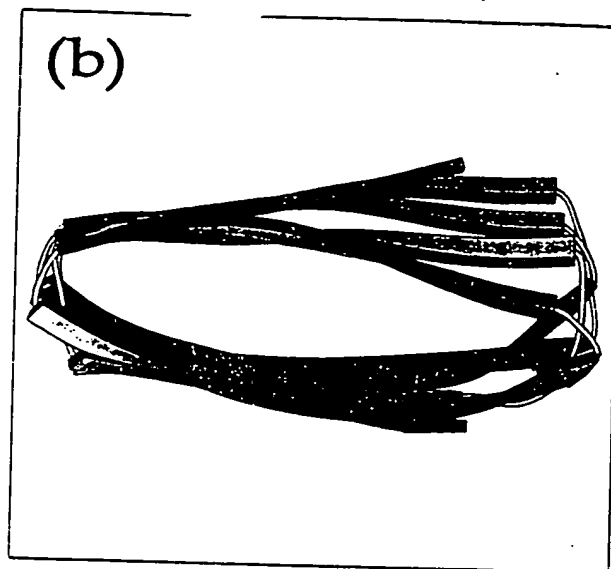
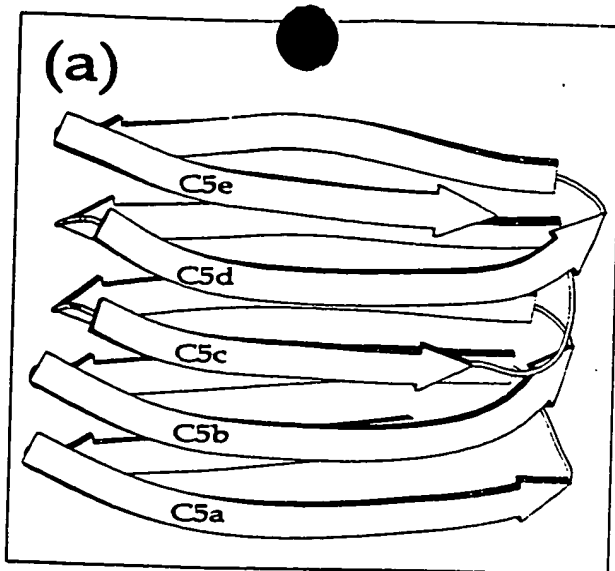


Figure 11A, 11B and 11C

005040" 2014-05-09

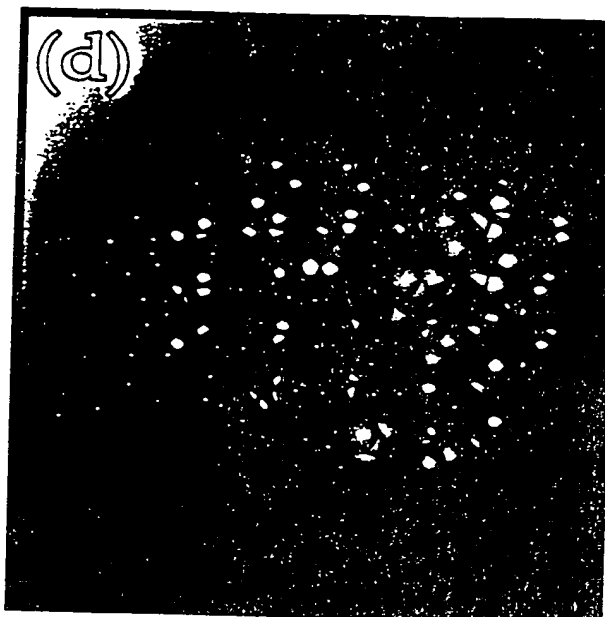
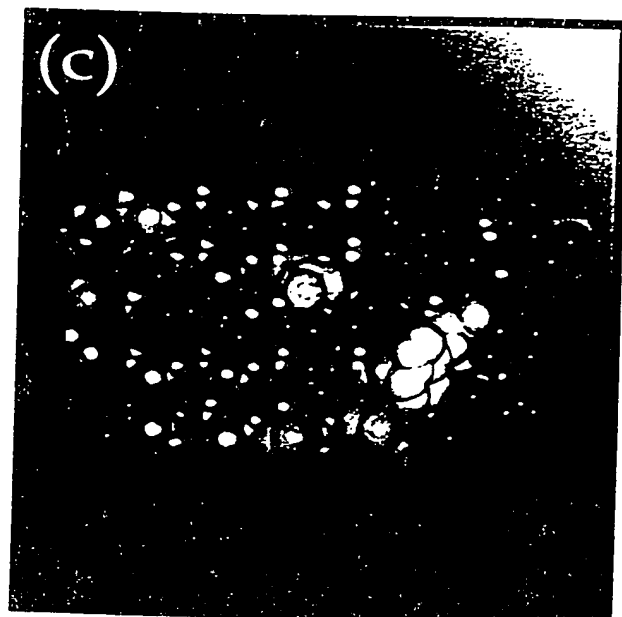
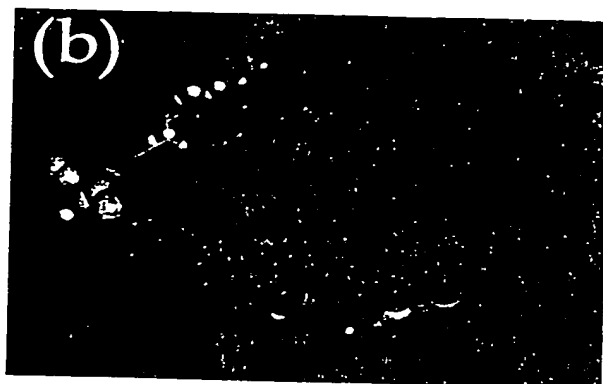


Figure 12 A, 12B, 12C and 12D

Figure 13A and 13B

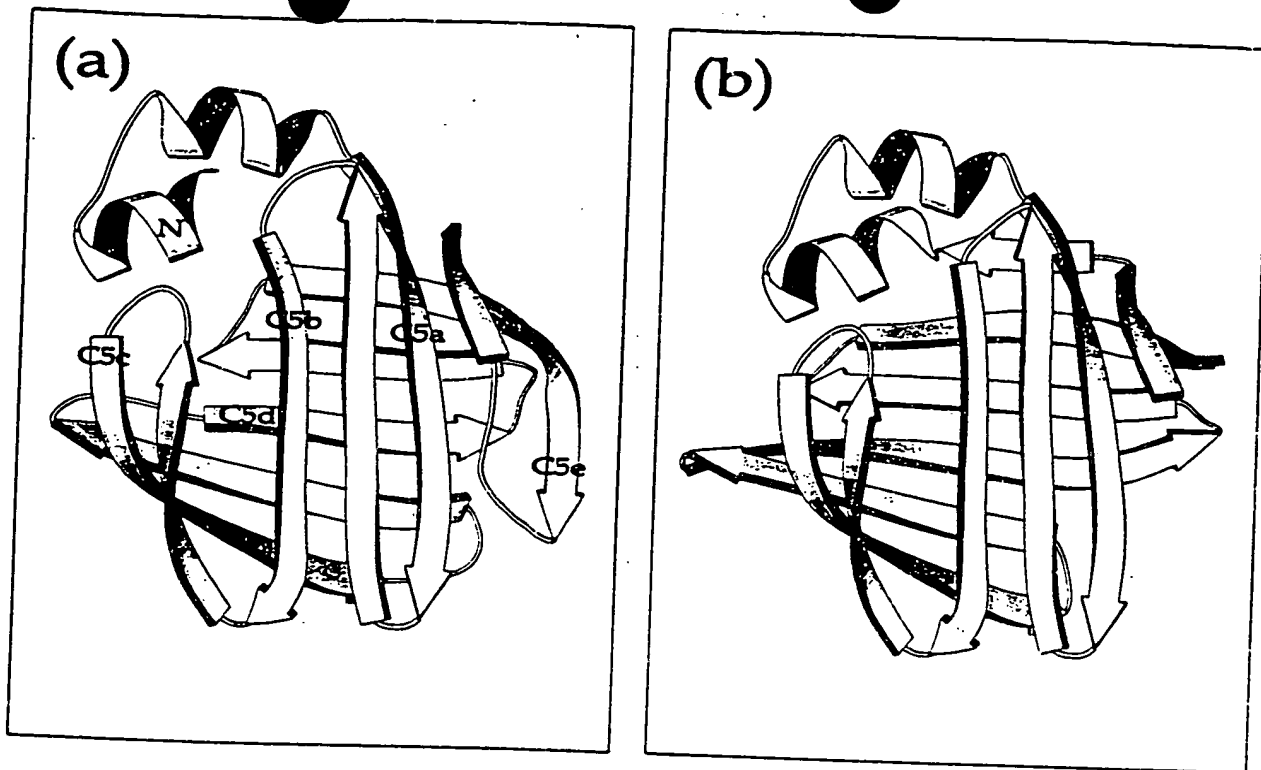


Figure 14A and 14B

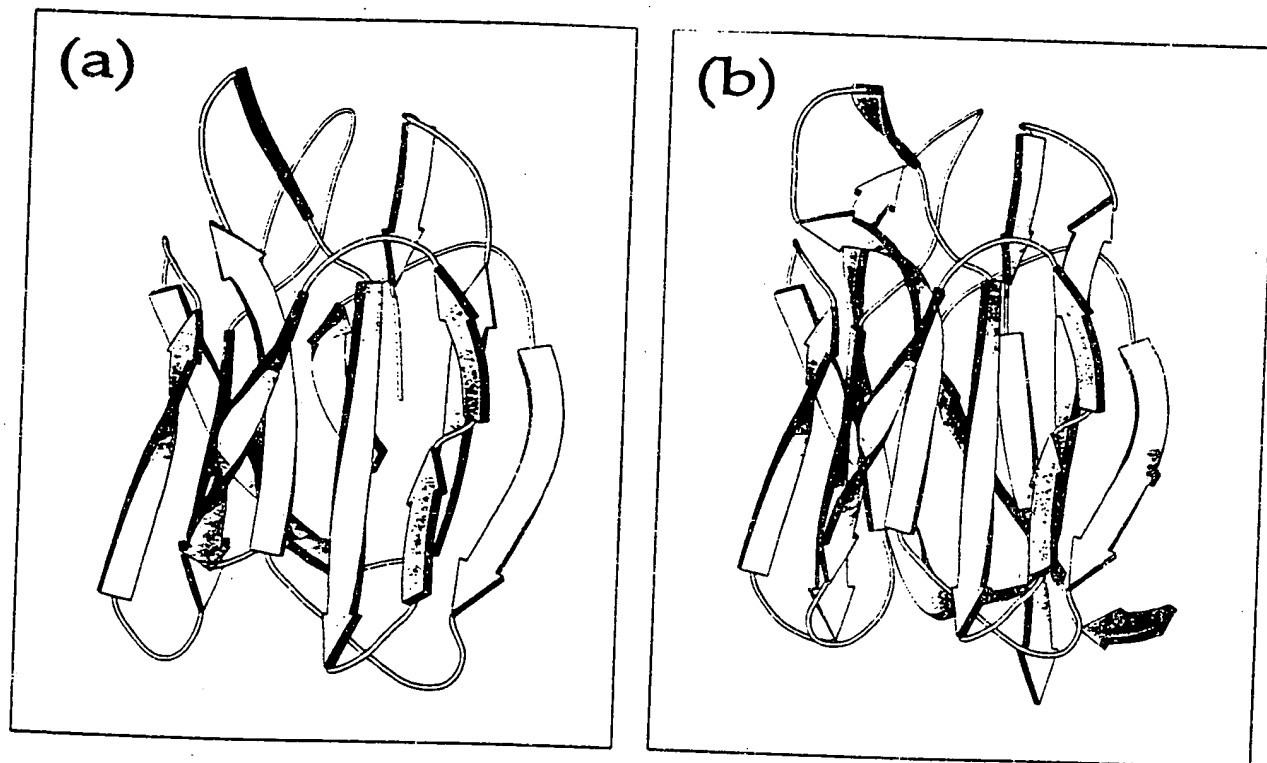


Figure 13A, 13B, 14A and 14B

005040" 207E4560

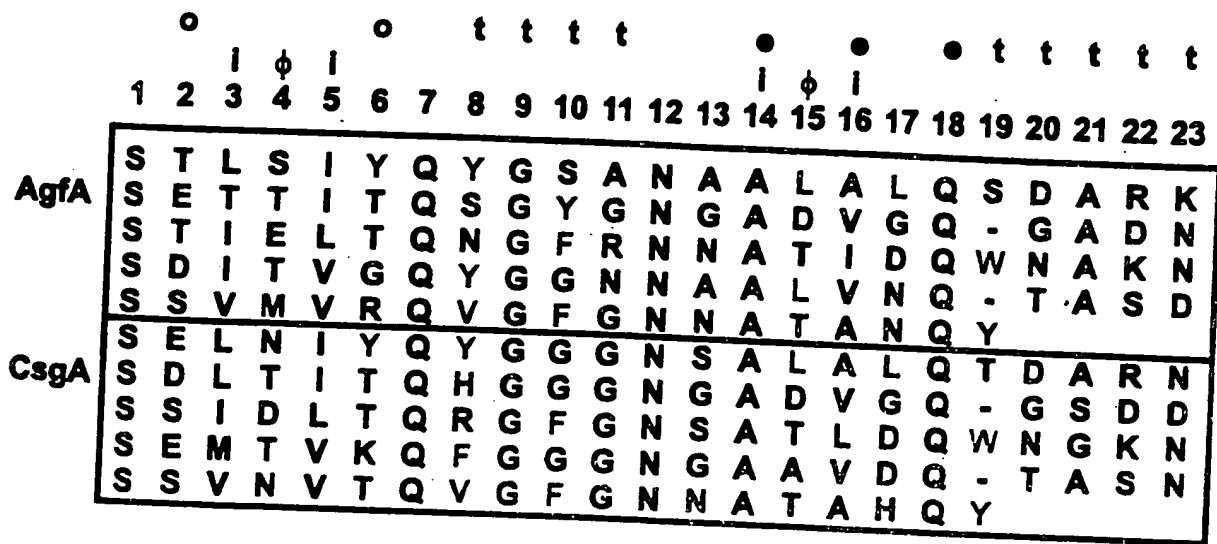


Figure 15

(a)

| | | | |
|-----|-----|------------------------|-----|
| SMP | 328 | IENAIGGSG-ND-VIVGNAANN | 347 |
| | 248 | VLKGGAG-ND-VLFGGGGAD | 365 |
| | 366 | ELWGGAG-KD IFVFSASD | 383 |

| | | | |
|------|----|-------------------------|----|
| AgfA | 23 | STLSIYQYGSANAALALQSDARK | 45 |
| | 46 | SETTITQSGYGNGADVGGGADN | 67 |
| | 68 | STIELTQNGFRNNATIDQWNAKN | 90 |

(b)

| | | | |
|-----|----|--------------------------|----|
| PMP | 40 | VIISKKGDIITIRT-ESPFKNT | 61 |
| | 62 | ISFKLGQEFETTADNRKTKSTVTL | 86 |

| | | | |
|------|----|---------------------------|----|
| AgfA | 25 | LSIYQYGSANAALALQSDARKSE | 47 |
| | 48 | TTITQSGYGNGADVGGGADNSTIEL | 72 |

(c)

| | | | |
|-------|-----|----------------------|-----|
| VMO-I | 34 | FALKVEPSQFGRDDTALNG | 52 |
| | 87 | FSLRSEKSQGGGDDTAANN | 105 |
| | 138 | LQTKVESPPQGLRDDTALNN | 156 |
| | 25 | LSI-YQ--YGSANAALALQ | 40 |
| | 70 | IEL-TQ--NGFRNNATIDQ | 85 |
| | 115 | VMV-RQ--VGFGNNATANQ | 130 |

Figure 16A, 16B, 16C

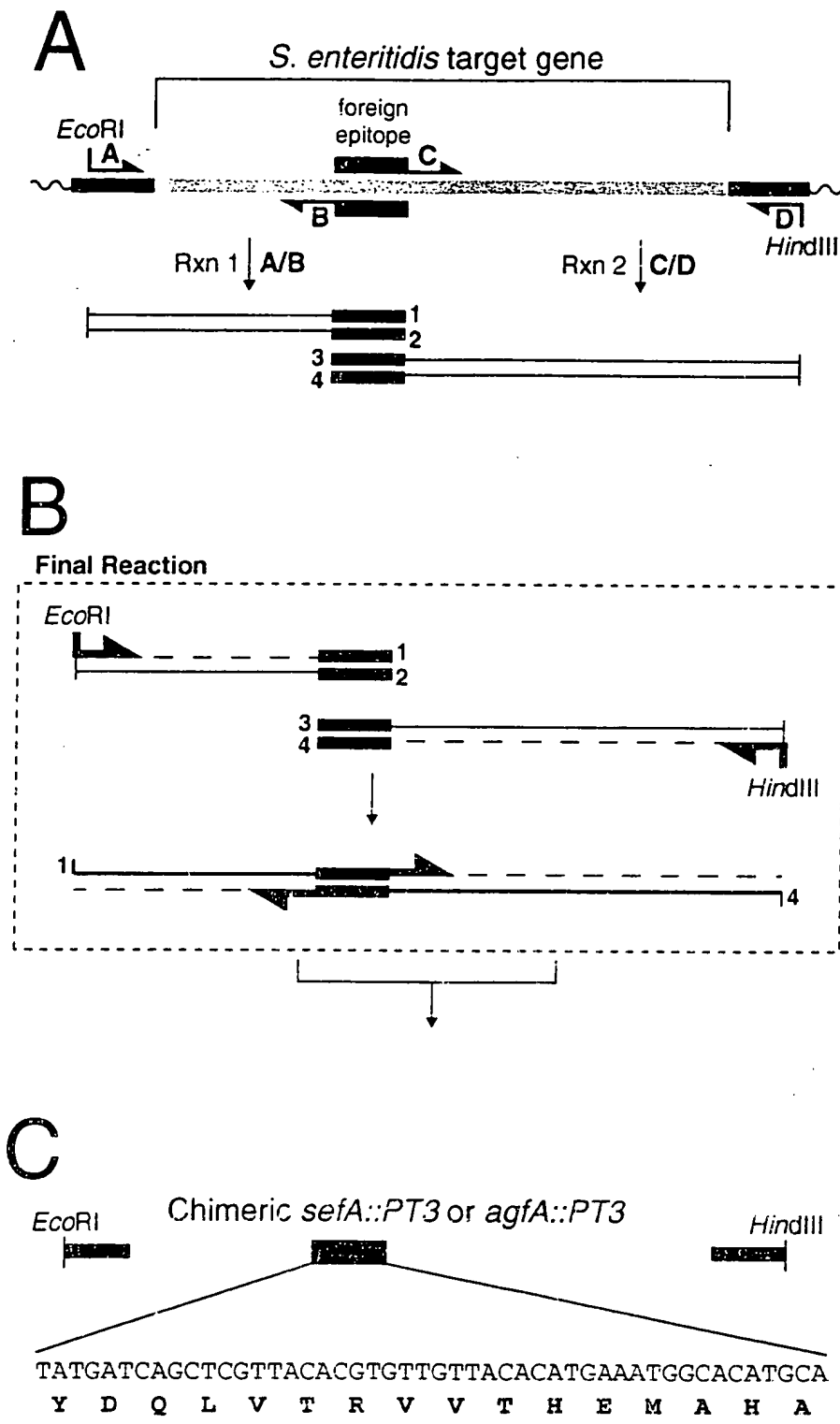


Figure 17A, 17B, 17C

005040" 20h4550

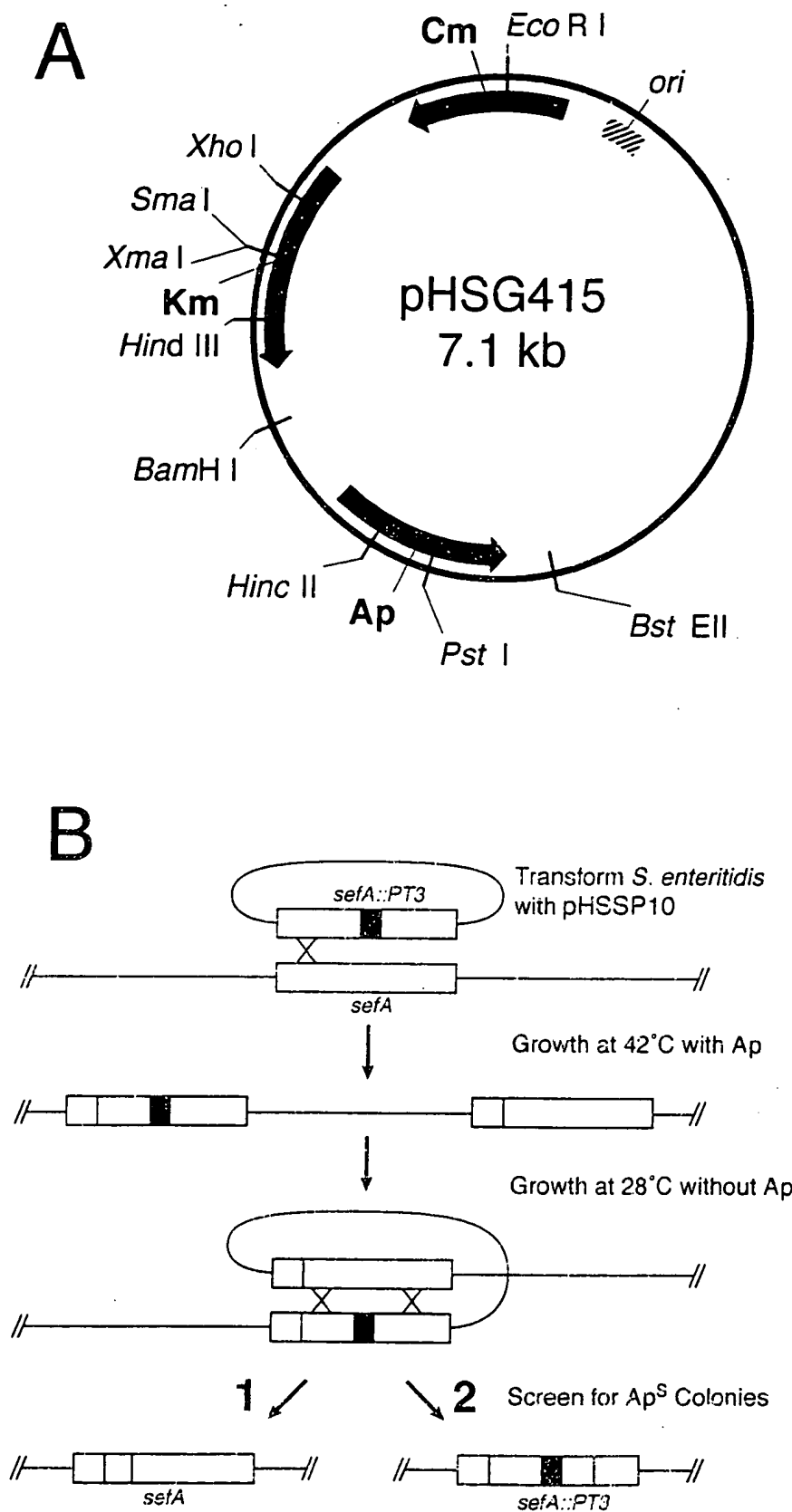


Figure 18A, 18B

005040-20424560

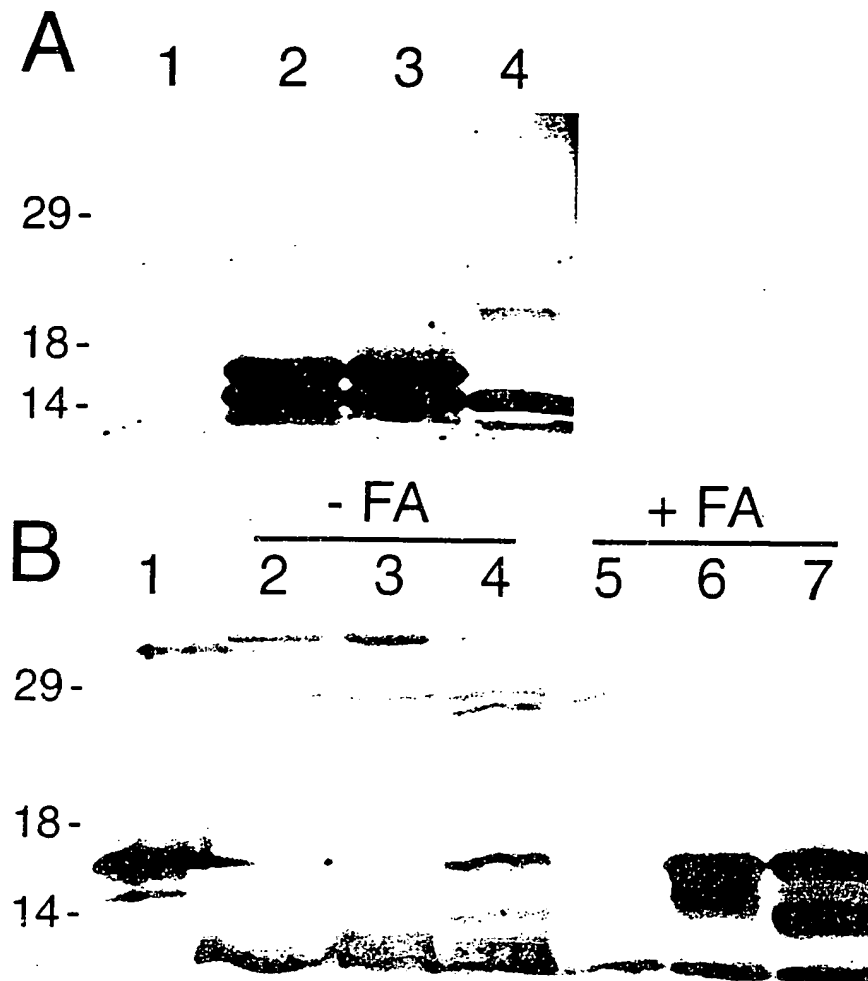


Figure 19A, 19B

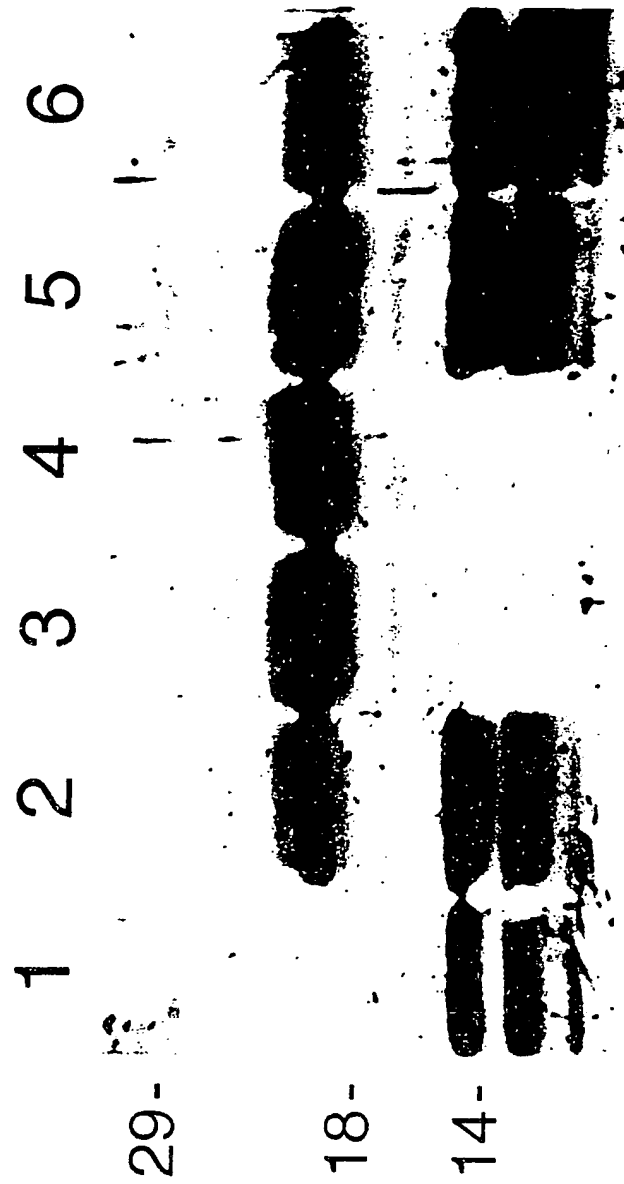


Figure 20

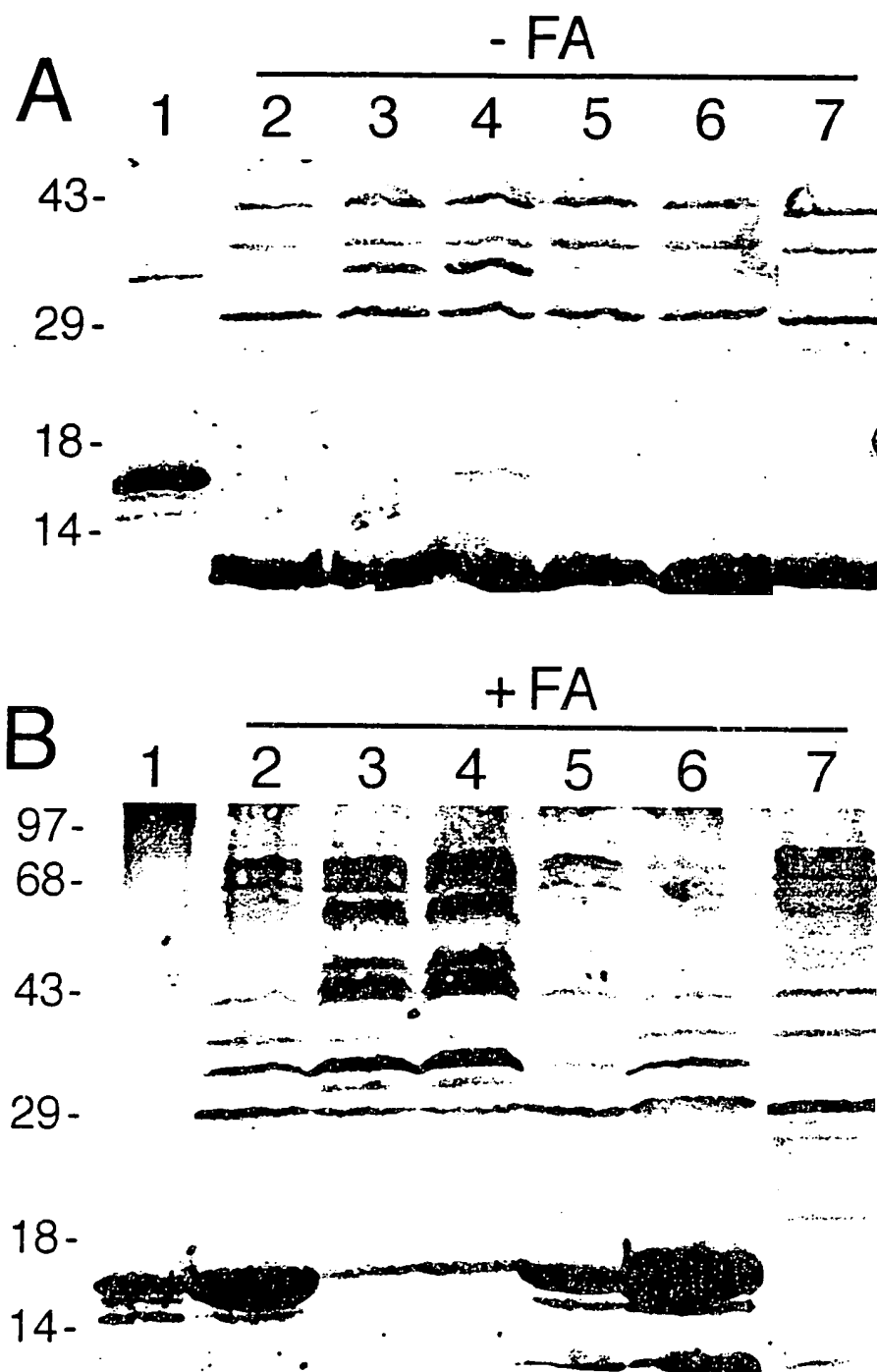


Figure 21A, 21B

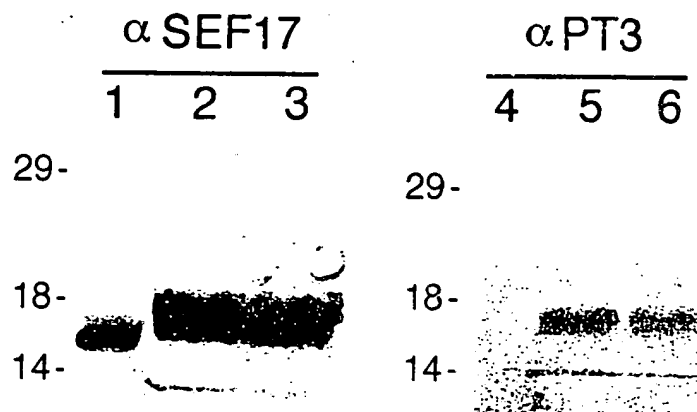


Figure 22

005040" 204E4560

A

PT3 epitope of *L. major*

YDQLVTRVVTHEMAHA

B

SefA amino acid sequence

1 AGFVGNKAVVQAAVTIAAQNTTSANWSQDP 30
31 GFTGPAVAAGQKVGTL SITATGPHNSVSIA 60
61 GKGASVSGGVATVPFVDGQGQPVFRGRIQG 90
91 ANINDQANTGIDGLAGWRVASSQETLNVPV 120
121 TTFGKSTLPAGTFTATFYVQQYQN 144

S1 S10
S6
S10 S2
S6
S2 S3 S7
S7 S8 S4
S5
S4 S9

Figure 23A, 23B

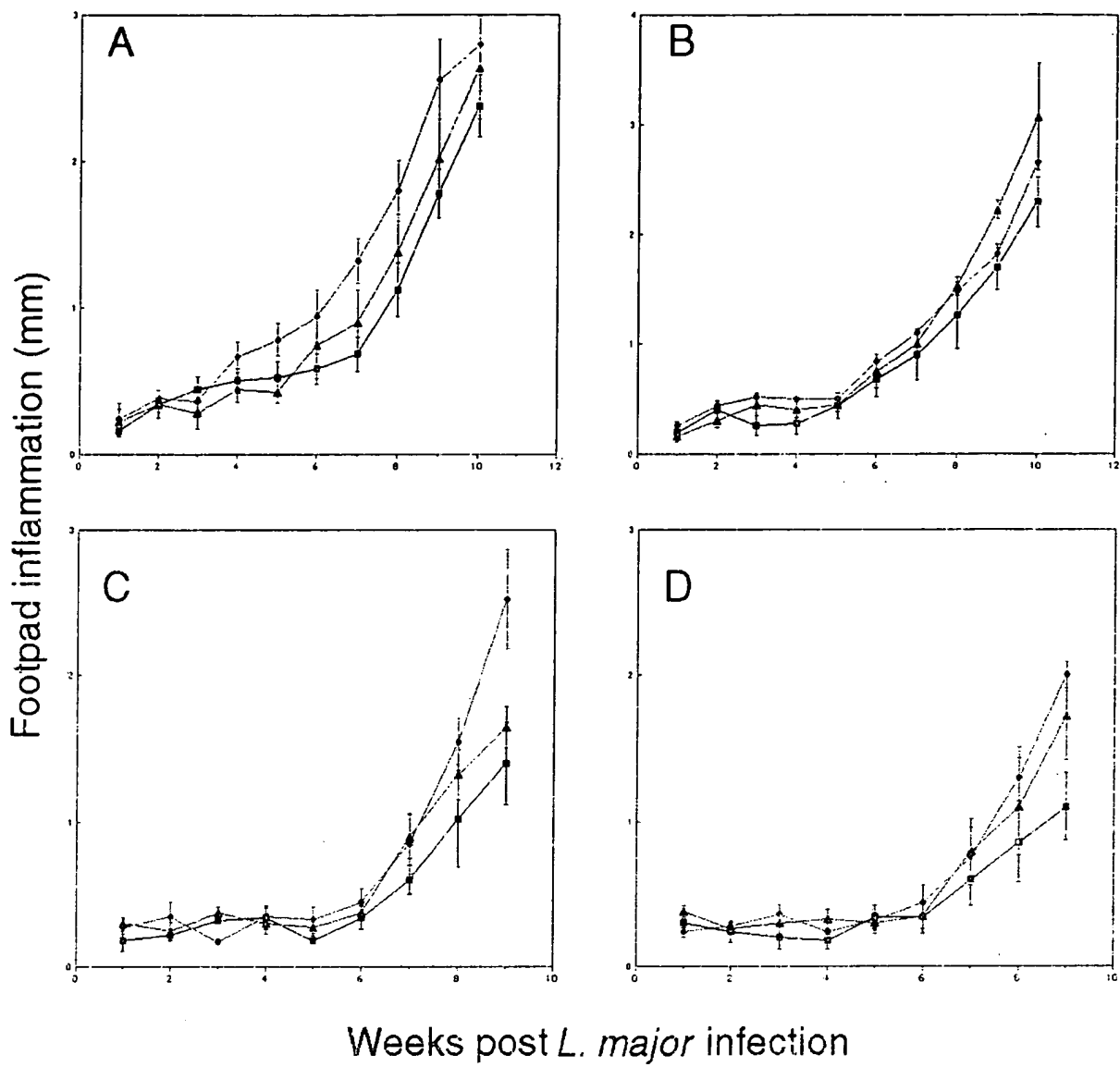


Fig. 24

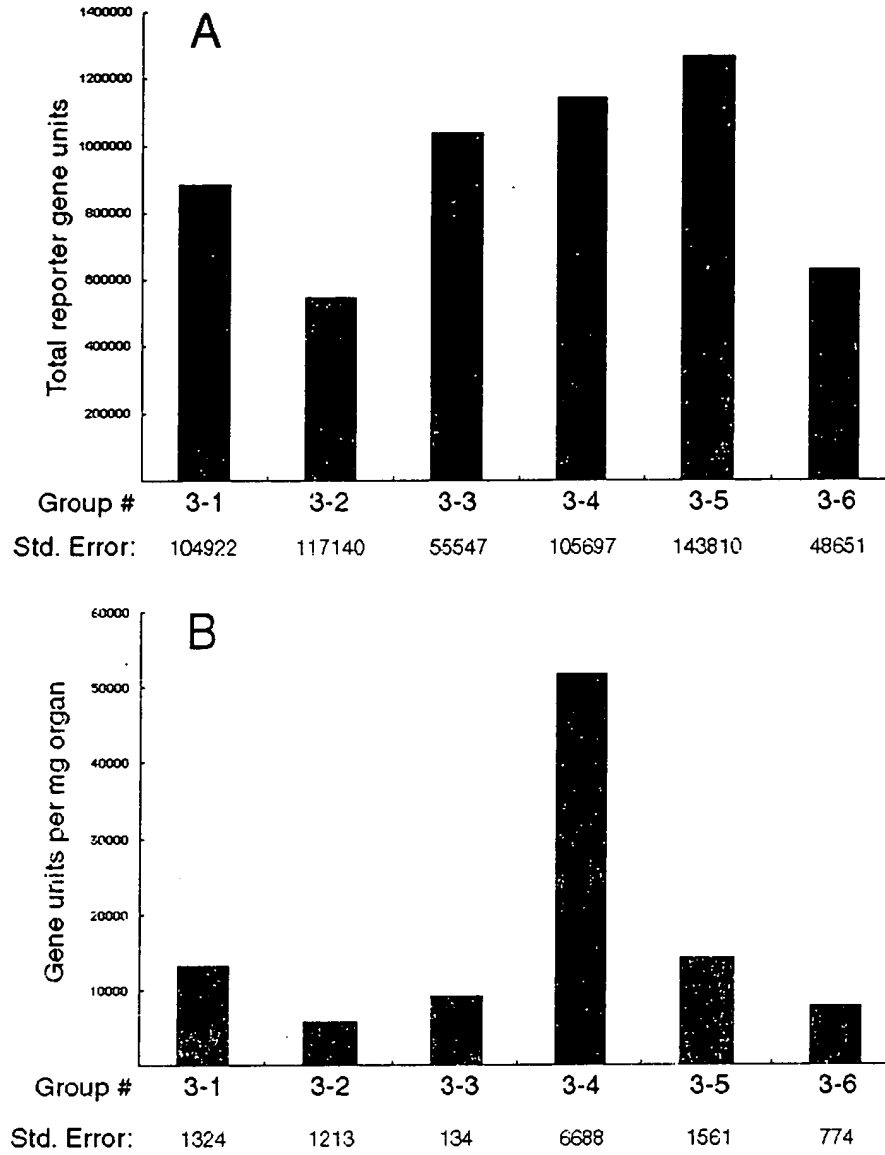


Fig. 25

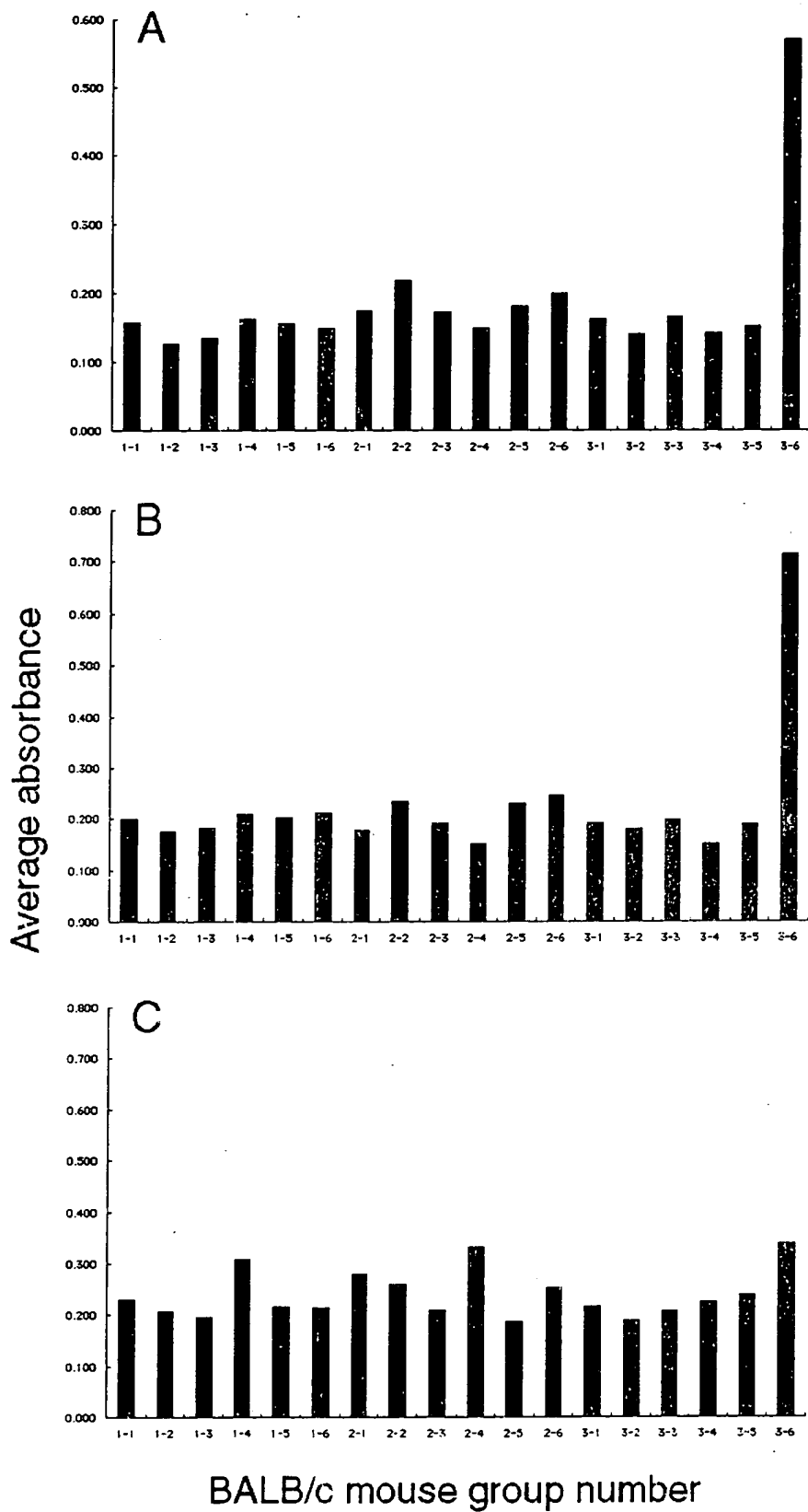


Fig. 26